Serial No.: 10/694,422 Filing Date: October 27, 2003

Our Docket: 442-197

Page 3 of 15

## **IN THE CLAIMS:**

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Presently Amended) An electromechanical plug device comprising:

a plug connector, which is adapted for electrical and mechanical connection with a mating plug connector and which possesses an outgoing cable part having a circuit substrate provided for electrical connection with an outgoing cable and furthermore possesses a contact carrying drum supported for rotation about its longitudinal axis, the contact carrying drum having a front axial side and an axial rear side, the contact carrying drum having first plug contacts, which are accessible from the front axial side facing away from the outgoing cable part, the first plug contacts being able to be contacted electrically by second plug contacts of the mating plug connector the contact carrying drum axial rear side, facing the outgoing cable part, including first abutment type contact faces, which irrespectively the instantaneous relative position of rotation of the outgoing cable part and the contact carrying drum are contacted or are able to be contacted by second abutment type contact faces provided axially oppositely on the circuit substrate, wherein the contact carrying drum is able to be moved in the direction of its longitudinal axis with limited extent in relation to the outgoing cable part so that it is able to be shifted away from the mating plug connector to be connected toward the circuit substrate, the first and the second abutment type contact faces being thrust against each other.

2. (Original) The plug device as set forth in claim 1, wherein the first and/or second abutment type contact faces are at least partially circular or circularly arcuate with a center of curvature on the longitudinal axis of the contact carrying drum.

Serial No.: 10/694,422 Filing Date: October 27, 2003

Our Docket: 442-197

Page 4 of 15

- 3. (Presently Amended) The plug device as set forth in claim 2, wherein the other of the first and second abutment type contact faces cooperating with the partially circular or circularly arcuate abutment type contact faces are formed of resilient button contact elements.
- 4. (Original) The plug device as set forth in claim 2, wherein the partially circular or circularly arcuate abutment type contact faces are arranged concentrically to each other.
- 5. (Previously Presented) The plug device as set forth in claim 4, wherein the circular or circularly arcuate abutment type contact faces are at the same level.
- 6. (Previously Presented) The plug device as set forth in claim 5, wherein the circuit substrate is a printed circuit board.
- 7. (Original) The plug device as set forth in claim 1, allowing a relative, angularly unlimited rotation between the outgoing cable part and the contact carrying drum.
- 8. (Cancelled)
- 9. (Currently Amended) The plug device as set forth in claim § 1, comprising a tooth engaging means provided on the axial rear side of the contact carrying drum, the tooth engaging means being adapted to make an interlocking and rotationally locking engagement with the

Filing Date: October 27, 2003

Our Docket: 442-197

Page 5 of 15

outgoing cable part.

- 10. (Previously Presented) The plug device as set forth in claim 1, wherein the contact carrying drum is a 3D- molded interconnect device component whose first plug contacts are at least in part constituted by electrical conductors produced by molded interconnect device technology.
- 11. (Previously Presented) The plug device as set forth in claim 1, wherein the contact carrying drum possesses channel-like plug sockets open toward the axial front side, which are adapted to receive pin-like second plug contacts of the mating plug connector and which peripherally are furnished with at least one electrical conductor belonging to the first plug contacts, the at least one conductor is able to be electrically contacted by the inserted second plug contacts.
- 12. (Previously Presented) The plug device as set forth in claim 11, wherein the channel-like plug sockets are delimited by resiliently elastic holding means placed at the outer periphery of the contact carrying drum, the holding means being able to be acted upon by the connected mating plug connector on the outside so that the holding means may thrust the pin-like second plug contacts, located in the respective plug socket inward radially into contact with the electrical conductors of the first plug contacts.
- 13. (Original) The plug device as set forth in claim 11, wherein the channel-like plug

Filing Date: October 27, 2003

Our Docket: 442-197

Page 6 of 15

sockets have a trapezium-like cross section, both their base area and also their flanks converging

toward the base area being clad with an electrical conductor of the first signal contacts.

14. (Original) The plug device as set forth in claim 11, wherein the plug sockets taper in

cross section toward the axial rear side and toward the contact carrying drum so that the pin-like

second plug contacts are thrust, during the connecting operation, progressively against laterally

placed electrical conductors of the first plug contacts.

15. (Withdrawn) The plug device as set forth in claim 1, wherein the contact carrying drum

has contact pins belonging to the first plug contacts, which contact pins project at the axial front

side and are designed to fit into sleeve-like second plug contacts of the mating plug connector.

16. (Withdrawn) The plug device as set forth in claim 1, wherein the first and/or the second

abutment type contact faces are constituted by a permanently elastic contact material,-as for

instance an electrically conductive sealant or a conductive adhesive.

17. (Original) The plug device as set forth in claim 1, wherein the outgoing cable part

comprises a housing consisting of plastic material, in which the circuit substrate is embedded,

more especially by having the material molded about it, and which possesses a drum socket

leading to the contact making region with the second abutment type contact faces, into which

socket the contact carrying drum is inserted, with its axial rear side to the fore, so as to be

Filing Date: October 27, 2003

Our Docket: 442-197

Page 7 of 15

rotatable while being axially tethered.

18. (Original) The plug device as set forth in claim 17, wherein on the housing within the drum socket a first annular sealing projection, concentrically surrounding the contact carrying drum, is formed, against which projection a sleeve-like wall section, surrounding contact carrying drum, of the mating plug connector is thrust in the connected state with a sealing action.

- 19. (Original) The plug device as set forth in claim 17, comprising a second annular seal projection, surrounding the contact carrying drum and in sealing contact with it, said seal projection being formed on the housing within the drum socket.
- 20. (Withdrawn) The plug device as set forth in claim 1, comprising a contact carrying drum with a multi-part support body with a core which is initially completely metallized and to produce the first signal contacts is machined, on which core two head parts are mounted from two opposite sides, of which head parts the head part located at the axial rear side bears on the first abutment type contact faces.
- 21. (Original) The plug device as set forth in claim 1, wherein the plug connector is designed in the form of an elbow connector.
- 22. (New) An electromechanical plug device comprising:

Filing Date: October 27, 2003

Our Docket: 442-197

Page 8 of 15

a plug connector, which is adapted for electrical and mechanical connection with a

mating plug connector;

the plug connector including an outgoing cable part having a circuit substrate adapted for

electrical connection with an outgoing cable, and a contact carrying drum supported for rotation

about its longitudinal axis, the contact carrying drum having a front axial side and an axial rear

side, the contact carrying drum having first plug contacts, which are accessible from the front

axial side facing away from the outgoing cable part, the first plug contacts adapted to electrically

contact second plug contacts of the mating plug connector,

the contact carrying drum axial rear side, faces the outgoing cable part, and includes first

abutment type contact faces, which, irrespective of the instantaneous relative position of rotation

of the outgoing cable part and the contact carrying drum, are contactable to second abutment

type contact faces provided axially oppositely on the circuit substrate, and

wherein the contact carrying drum is a 3D- molded interconnect device component, and

the first plug contacts are at least in part constituted by electrical conductors in the form of a

metallized layer formed on the contact carrying drum by molded interconnect device technology

and integral therewith.

23. (New) An electromechanical plug device comprising:

a plug connector, which is adapted for electrical and mechanical connection with a

mating plug connector,

the plug connector including an outgoing cable part having a circuit substrate adapted for

electrical connection with an outgoing cable, and a contact carrying drum supported for rotation

about its longitudinal axis, the contact carrying drum having a front axial side and an axial rear

Filing Date: October 27, 2003

Our Docket: 442-197

Page 9 of 15

side, the contact carrying drum having first plug contacts, which are accessible from the front axial side facing away from the outgoing cable part, the first plug contacts adapted to electrically contact second plug contacts of the mating plug connector,

the contact carrying drum axial rear side, faces the outgoing cable part, and includes first abutment type contact faces, which, irrespective of the instantaneous relative position of rotation of the outgoing cable part and the contact carrying drum, are contactable to second abutment type contact faces provided axially oppositely on the circuit substrate, and

wherein the contact carrying drum includes groove-like recesses in communication with channel-like plug sockets open toward the axial front side, the plug sockets are adapted to receive pin-like second plug contacts of the mating plug connector, a metal coating being formed on, and integral with, the periphery of at least one of the groove-like recesses of the contact carrying drum forming at least one conductor which is part of the first plug contacts, and the at least one electrical conductor is able to be electrically contacted by the inserted second plug contacts.